

14. Encourage further research, including study of improvement in methods of applying the knowledge acquired."

All of the above cannot be carried out in many communities and Dr. William F. Snow further subdivides them in six groups:

1. Diagnostic services :
  - (a) Laboratory service.
  - (b) Consultation service.
  - (c) Special examination and advice centers.
2. Case findings and holding :
  - (a) Familial syphilis cases.
  - (b) Early syphilis in young men and young women.
  - (c) Congenital syphilis cases.
3. Securing or providing treatment :
  - (a) For syphilis in pregnant women.
  - (b) For syphilis in young married men and women.
  - (c) For syphilis and gonorrhea in children.
  - (d) For early gonococcal infection of young married men and women.
  - (e) For other cases of early syphilis and gonorrhea, and for the remaining cases as personnel, drugs and other facilities permit.
4. Information service :
  - (a) Adult education and publicity concerning these diseases and what may be done about them.
  - (b) Assistance to education authorities and voluntary agencies in carrying out permanent educational plans for incorporating sex education and knowledge of syphilis and gonococcal infections in health education courses.
5. Reporting and the collection of other data :
  - (a) Confidential case reporting for diagnostic, epidemiological, treatment, and other administrative purposes.
  - (b) Securing and tabulating of other information regarding history and disposition of cases.
6. Research and demonstration activities :
  - (a) Further research on problems of syphilis control.
  - (b) Further research on problems of gonorrhea control.
  - (c) Studies and demonstrations of related administrative measures.

"It is evident that a workable program such as this summary implies could be operated on a nation-wide scale only through cooperation of all the states and the Federal Government. It is fortunate that the Social Security Act recognizes this by providing for federal, state, and local cooperation in the prevention of disease and promotion of health. As a result the opportunities have been greatly broadened for including the control of syphilis and gonorrhea in the enlarged program for conservation of national vitality under the stimulating leadership of the United States Public Health Service, the Children's Bureau, and other governmental agencies."

Now to some figures from the Army back in 1918. Most of the men drafted for the Army came from industries of the country, and surely they were not picked from an inferior group. In the second million men drafted, 5.6 per cent had a venereal disease at the time of examination upon arrival at camp. That is, on a particular day one man out of eighteen was infected. During the period of a year the proportion would be even larger.

"Army figures show the importance of venereal diseases as a cause of disability. During 1918, for every one thousand men in service 1,563 days were lost on account of venereal infection. More than four men in a thousand were always on the list of ineffectiveness, in hospitals or infirmaries for this reason. The number of days lost because of these diseases totaled 3,937,710. In 1919, for a much reduced army, the number of days lost was 1,923,420. 'It may be conservatively estimated,' states the officer in charge of this branch of the service, 'that the actual loss to the Army caused by venereal diseases during the year 1919 was not less than \$15,000,000.' Were the measures adopted for control worth while? The Army surely thought they

were and every effort was expended in the endeavor to keep the rate of infection as low as possible."

Translate these figures to industrial life. Assuming there are at least ten million men in industries alone today, it can easily be estimated that the time lost is approximately 15,630,000 days. Industries do not pay by the month at \$90 and board and barracks as the Army did in 1918-1919, so take a wage, say, of \$4 per day and the loss is more than \$60,000,000 annually. Consider the amount of coal that would not be mined, the lumber that would not be cut, etc.; the situation is present in all groups, naturally worse in some, but ever present, and it is not only time lost, for a worker infected with a venereal disease cannot be efficient for he does not know how far that infection has gone, either personally or otherwise. He is likely nervous and afraid. There is no way to estimate the road accidents caused by syphilis for eventually it affects the nervous system and a nervous breakdown may occur at any moment.

Is it worth while to spend the money for control of venereal disease? Consider that one of fifteen of the insane are in state institutions because of syphilis and that blind institutions have a great percentage of inmates due to gonorrhea.

Money well spent now in this cause will, in the next generation, bring back results a thousandfold. — *Ohio Health News*.

### CALIFORNIA TYPHOID REGULATIONS AMENDED

The California State Board of Public Health, September 14, 1937, amended its regulations for the control of typhoid fever and paratyphoid fever so as to provide more definitely and precisely for the control of carriers. Section 7 of the regulations now reads as follows:

#### RULE 7. TYPHOID OR PARATYPHOID CARRIERS

Any person who has been free from symptoms of typhoid fever or paratyphoid fever for one month and whose feces or urine contain typhoid or paratyphoid bacilli, shall be considered a convalescent carrier.

Any convalescent carrier whose feces or urine continue to contain typhoid or paratyphoid bacilli after one year following clinical recovery, shall be considered a chronic carrier.

Any person whose feces or urine contain typhoid or paratyphoid bacilli but who gives no history of having had typhoid fever or paratyphoid fever shall also be considered a chronic carrier.

Any known or suspected typhoid or paratyphoid carrier shall be reported to the local health authority, who shall investigate and report the findings to the State Department of Public Health.

Carriers of typhoid or paratyphoid bacilli shall be subject to a modified quarantine by the State Department of Public Health, and the provision of this quarantine shall be considered as fulfilled during such period as the carrier observes the instructions issued by the State Department of Public Health and the local health authority. Such instructions shall include:

1. The carrier shall take no part in the preparation, serving or handling of milk or other food which may be consumed by persons other than his own immediate family.

2. The carrier shall not participate in the management of a dairy or other milk-distributing plant, boarding house, restaurant, food store, or any place where food is prepared or served.

3. The carrier shall keep the local health authority informed at all times of any change of address or occupation.

In the event of any known or suspected carrier leaving the jurisdiction of a local health authority, the State Department of Public Health shall be notified by the local health authority of the name of the carrier and his destination.

Violation of any of the provisions of this modified quarantine shall constitute an infraction of quarantine regulations and as such be punishable under Section 377a of the Penal Code.

The following instructions for health officers in controlling typhoid fever, paratyphoid A and B carriers have been appended to the regulations:

#### INSTRUCTIONS FOR HEALTH OFFICERS

##### Typhoid Fever, Paratyphoid Fever A and B Carriers

It has been estimated that from 2 to 4 per cent of all cases of typhoid fever become chronic carriers. Some

carriers continue to harbor and discharge the bacilli in the feces or urine for many years, and since many discharge the organisms only intermittently, they may not be discovered through single laboratory tests.

#### Definitions

According to the regulations of the State Board of Public Health, carriers are either convalescent carriers or chronic. A convalescent carrier is anyone who has been free from symptoms of typhoid fever or paratyphoid for one month and whose feces or urine contain typhoid or paratyphoid bacilli; however, any convalescent carrier whose feces or urine continue to contain the organisms after one year following clinical recovery, shall be designated a chronic carrier. Also, any person whose feces or urine contain typhoid or paratyphoid bacilli even though he gives no history of having had typhoid or paratyphoid fever shall be designated as a chronic carrier.

#### Investigations

The regulations for the control of typhoid and paratyphoid fevers require the local health officer to investigate each reported case of typhoid fever, to ascertain the sources of infection and to report his findings to the State Department of Public Health. In conducting such an investigation it is advisable to require a series of three specimens of feces and urine from each suspected carrier and also to require specimens of feces and urine from each of the adult members of the household under investigation—particularly the food handlers. Feces and urine specimens should be required also from any contacts who might be considered possible sources of infection.

#### Laboratory Requirements

Specimens of feces and of urine should be submitted in special containers provided by the laboratory.

Whenever specimens are taken for the laboratory diagnosis of typhoid fever (and this includes specimens from suspected carriers), they shall be sent to a laboratory approved by the State Board of Public Health. Of course, a specimen may be sent to a laboratory that is not approved provided the specimen is divided and at the same time sent to a laboratory holding the approval certificate of the State Board of Public Health.

All laboratories approved by the State Board of Public Health making examinations for the identification of typhoid or paratyphoid carriers shall, in all positive cases forward to the State Bureau of Laboratories, a culture of the organism the isolation of which established the diagnosis.

#### Reporting

A typhoid or paratyphoid carrier shall be reported to the State Department of Public Health at once. He is a potential source of infection and is required to follow definite regulations to prevent the spread of infection to others. The restrictions imposed upon these carriers refer mainly to the handling of food. Provided they meet these requirements their activities will otherwise be unhampered. The health officer should never reveal to the public the name and address of a carrier unless the carrier refuses to comply with the regulations and thereby fails to cooperate.

#### Instructions

When a carrier has been discovered, the health officer or his representative is required to conduct an investigation, explaining to the carrier his condition as a carrier, issuing specific instructions and obtaining the carrier's signature on the agreement blanks, with one copy for the carrier, one for the health officer, and one for the State Department of Public Health.

The specific instructions issued by the local health officer should be in writing and should cover the following points:

1. Carrier to take no part in the preparation, serving or handling of milk or other food which may be consumed by persons other than his own immediate family; and not to participate in the management of a dairy or other milk-distributing plant, boarding house, restaurant, food store, or in any occupation involving the preparation or handling of food, or in any place where food is prepared or served.
2. To encourage every member of his family to be immunized against typhoid fever every three years.
3. To wash his hands thoroughly after using the toilet, with plenty of soap and hot water and also before handling food in the home.
4. To use an adequate amount of quick lime in an outdoor privy (if such must be used), keeping same in a good sanitary condition and fly-proof.
5. To keep the local health officer informed at all times of his address and any change of occupation.
6. To report to the local health officer immediately any cases of illness in family or among immediate associates.
7. To discuss any problems arising concerning his carrier state with the health officer.

8. To communicate with the health officer before submitting to any type of treatment or attempted cure of the carrier condition.

9. Not to be permitted to live or work upon the premises of a dairy except with written permission of the Director of the State Department of Public Health.

At least twice each year the health officer should visit each recorded carrier in his territory to check the occupation, other activities, and the address. We do not recommend the collection of feces and urine specimens from those persons definitely proved to be carriers.

#### Release of Chronic Carriers

Those persons proved to harbor typhoid or paratyphoid organisms in their urine will not be released at any time.

Those persons proved to harbor typhoid or paratyphoid organisms in the feces are not subject to release except with the written permission of the Director of the State Department of Public Health.

There is no known medical treatment for the cure of the chronic carrier condition. Removal of the gall-bladder in selected cases offers a 60 to 75 per cent chance of cure in those cases proved to be gall-bladder carriers. Only those considered good surgical risks should be accepted for operation. Definite instructions issued by the State Department of Public Health must be carried out to obtain the release of such a carrier.

The surgeons contemplating gall-bladder removal in these selected cases should follow these rules:

1. Positive duodenal specimens should be obtained before surgery. Unless a positive duodenal specimen is obtained it is not advisable to operate, as the infection may not be localized in the gall-bladder. In submitting duodenal specimens the surgeon should make certain that the specimens contain bile.
2. Health officers to be notified.

3. After surgery the release of the carrier rests with the Director of the State Department of Public Health, and not the surgeon.

4. After clinical recovery of the patient the following procedure shall be carried out:

- (a) Eight successive negative feces specimens taken not less than two weeks apart, must be obtained.
- (b) These specimens to be taken under the supervision of the health officer and submitted to the State Bureau of Laboratories or to such other laboratory as may be designated by the Director of the State Department of Public Health.

(c) In addition to the eight negative feces specimens, three successive negative duodenal specimens taken after clinical recovery and not less than two weeks apart, must be obtained. These specimens to be taken under the supervision of the health officer and submitted to the State Bureau of Laboratories or to such laboratory as may be designated by the Director of the State Department of Public Health.

#### Typhoid or Paratyphoid Carrier Agreement

Address: .....

Date: .....

Dr. W. M. Dickie, Director  
State Department of Public Health  
Sacramento, California  
My dear Doctor Dickie:

I have been informed that my excreta contain typhoid bacilli and that unless unusual precautions are taken persons will contract typhoid fever from me. Realizing this danger I hereby agree to observe the precautions stated below that I may be permitted to remain in free communication with other persons.

1. I shall take no part in the preparation or handling of milk or other food which will be consumed by other persons than my own immediate family. I shall not participate in the management of a dairy or other milk-distributing plant, boarding house, restaurant, food store, or in any occupation involving the preparation or handling of food.

2. I shall inform the local health officer of any contemplated change of residence so that he can notify the State Department of Public Health and obtain their approval.

It is understood that the California State Department of Public Health or the local health officer will not make public the fact that I am a carrier unless I in some way violate this agreement.

(Signature)

Witnesses:

- (1) .....
- (2) .....